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# A Critique of Traditional Agricultural Credit Projects and Policies

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# A CRITIQUE OF TRADITIONAL AGRICULTURAL CREDIT PROJECTS AND POLICIES*

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## Summary

Authors critique the results, assumptions, and policies commonly associated with agricultural credit projects in low income countries. A summary of new views on these projects is presented. These views emphasize voluntary savings mobilization and positive real rates of interest. Several explanations are given for why few of these new views have been adopted by policymakers.

The past several decades aid agencies have spent in excess of $5 billion dollars on rural financial market (RFM) projects. These projects have accompanied substantial increases in the number of institutions providing formal loans in low income countries (LICs), as well as increases in amounts spent by local governments for agricultural credit. Currently the volume of new agricultural loans in low income countries is in excess of 30 billion dollars U.S. per year. In several countries, especially Brazil and Thailand, agricultural credit

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programs currently make up a very large part of the efforts aimed at agricultural development.

In part, this intense interest in agricultural credit projects results from the ease with which they can be carried out, and the feeling that loans are a vital part of a package of inputs needed to stimulate change in agriculture. Some policymakers have also felt that cheap credit is an effective way of offsetting policies that penalize agriculture, and at the same time, a convenient way to treat rural poverty. In our opinion, this emphasis on loans to stimulate production and to help the poor has unfortunately diverted attention from the essential properties of finance, the process of financial intermediation, and the basic role that rural financial markets ought to play in development.1/ While some attention has been given to overall resource misallocation caused by RFM policies, little attention is paid to how RFMs intermediate between savers and borrowers [Wai, 1972a]. Likewise, very little attention has been given to how RFM policies affect overall income and wealth distribution and how political forces use financial systems to further their own aims. Even less attention has been given to how various policies influence the vitality of RFMs.

## Traditional Agricultural Credit Projects

Many agricultural credit projects carried out in the past twenty years in LICs have been similar. 2/ Part of this is due

to the replication in these countries of financial institutions that were successful in several developed countries: credit unions, credit cooperatives, private banks, and supervised credit agencies. Additional similarities are due to the common assumptions that underlie most of these projects.3/ These assumptions can be grouped into those relating to saver-borrower behavior, those associated with lender behavior, and those about the performance of rural finance markets. Common assumptions on saver-borrower behavior are that the rural poor cannot save and therefore will not respond to incentives or opportunities to save, that most farmers need cheap loans and supervision before they will adopt new technologies and make major farm investments, and that loans in-kind are used in the form granted.

Common assumptions about lender behavior are that most informal lenders are exploitative and charge borrowers rates of interest that result in large monopoly profits, that the rural poor do not receive formal loans because formal lenders are overly risk averse, that nationalized lenders can be forced to ignore their own profits and losses to service risky customers and the rural poor, and that all formal lenders can be induced to follow government regulations in allocating financial services. At a national level it is commonly assumed that cheap credit is an efficient way of off-setting production disincentives caused by low product prices or high input prices, that loan quotas established in the capital city

are efficient ways of allocating loans in the countryside, that loans should be a part of a package of inputs, that only production loans should be made, and that RFM vitality is not related to projects and policies. Recent research is showing that many of these assumptions are either unsubstantiated, weak, or incorrect.

Because so many institutions and assumptions are similar, it should not be surprising that RFM policies and techniques in LICs are also very similar. For example, heavy emphasis has been placed on creating new financial institutions to service particular rural needs or target groups such as the rural poor. Many countries, for example, have created specialized agricultural banks or development banks that lend largely to agriculture [Bourne and Graham, 1980a]. Credit cooperatives, credit unions, and supervised credit programs have also been popular at various times and places. Seldom do these institutions offer financial savings facilities. Instead they depend largely on central banks, government budgets, and foreign aid for funds.

Low interest rates are almost always assigned to formal loans and savings deposits alike, thereby penalizing savers. In nominal terms, rates of interest on agricultural loans may be as low as zero and seldom do they exceed 12 percent per year in most low income countries [World Bank, 1975, p. 79]. Typically, the rates of interest paid on rural savings deposits are much less than the concessionary rates charged on loans. Recent inflation has been

double-digit in most regions of the world, outside Asia. This has resulted in negative real rates of interest on most formal loans and deposits in rural areas [Galbis]. The real rate of interest is defined as the nominal rate of interest (the contractual rate) adjusted by some overall expected price index change for the economy.[4/] Because of the excess demand caused by these negative interest rates, governments have tried to force lenders to allocate loans to priority groups through quota systems, political persuasion, nationalization of banks, or through use of other inducements [Johnson]. Lenders quickly find ways to subvert many of these regulations, however [Kane, 1978]. Portfolio quotas result in redefinition of loans by lenders and loan size limits cause lenders to extend multiple small loans to previous borrowers of large loans, for example.

While some RFMs work better than others, a number of common problems stand out. These include very serious loan repayment problems in all too many countries [Boakye-Dankwa, Sanderatne]. It also includes very little medium and long-term formal credit, and high loan transaction costs for some borrowers and most lenders. These transaction costs discourage some from seeking formal loans, and also discourage lenders from serving certain groups. A handful of recent studies show that the lender's costs of making agricultural loans to medium and small sized farmers is 20 percent or more of the value of the loans extended, even in moderately well run programs [Ahmed, and World Bank, 1978]. If the lender is in a country

experiencing substantial inflation, the nominal rates of interest on loans needed to cover these lender costs and also maintain the purchasing power of the loan portfolio can be well in excess of 30 percent of the value of the agricultural loans made.

Studies have also shown that the borrowers' costs of acquiring these formal loans can be substantially larger than the nominal interest payments [Adams and Nehman, Pablo]. Total borrowing costs, especially for borrowers of small amounts, may be two or three times as much as the nominal interest payments. These costs include waiting in line, transportation costs, bribes, legal and title fees, paperwork expenses, and time lost from work to deal with these demands.

Even more serious, in all too many countries, policies have been ineffective in allocating a larger share of formal loans to agriculture in general and to the rural poor in particular because the risks, returns and costs of doing so are unattractive to formal lenders [Vogel and Larson, Fry, Ladman and Adams]. A less obvious problem relates to the nature of innovation taking place in RFMs. Most of these innovations are increasing rather than decreasing the total cost to society of financial intermediation. Many of these "distorted" innovations are defensive in nature; that is, they emerge in response to various regulations such as loan portfolio quotas and interest rate ceilings [Bhatt]. In extreme cases financial markets may overbuild facilities in rural areas

in order to syphon off savings deposits to urban centers [Christoffersen]. Most serious of all, it appears that operations of RFMs in most countries are resulting in inefficient allocation of resources, causing income and asset ownership concentration, allowing financial resources to flow out of low income areas and, in some cases, diverting resources out of agriculture [Araujo and Meyer, Adams and Tommy, Vogel, 1977, Onado and Porteri].

Over the past few years an increasing number of observers have criticized RFM performance [Von Pischke, 1979, Lipton, Gonzalez-Vega, 1977]. They argue that too little attention has been given to the economic and policy environment that influences RFM performance, and they also challenge the validity of many assumptions on which RFM projects are built. In addition, they attack policies commonly used to influence the behavior of lenders, borrowers, and financial markets as a whole. Ubiquitous low interest rate policies have taken the brunt of these attacks [Shaw].

Out of these criticisms, new suggestions have emerged on changes needed in RFM projects so that publically-stated goals and the performance of RFMs can be more closely synchronized. Despite increasing consensus, there have been very few changes in rural financial market projects to date. We speculate in the last section of this paper on why these changes are so slow in coming.

New Views on Rural Financial Market Projects

A key element in the new views on RFMs is the identification of the expected real rate of interest as a major determinant of borrower, saver and lender behavior [Gonzalez-Vega, 1976, Vogel, 1979]. Real rates are also thought to influence strongly the overall performance of financial markets. Proponents of the new views argue that low real rates of interest seriously disrupt the supply side of the financial system. Because interest rates on savings deposits are low, savers minimize the amount of financial savings they hold [Adams, 1978]. This forces formal lenders to rely on external funds to finance loans. Poor people in rural areas are especially disadvantaged by these low interest rates on savings. In large part the rich evade interest rate restrictions on savings accounts by lending through informal financial markets or by buying non-financial assets. The poor, however, find it difficult to assemble sufficient funds to acquire many asset forms: e.g. large animals, land, gold, buildings, time certificates of deposit. They are thus forced to hold surpluses in cash, crop inventories or small animals, or to consume what might otherwise be saved. Furthermore, because the funds lent in these programs are not locally mobilized, borrowers feel little obligation to repay funds that are provided by national or foreign governments [Matienzo, Central Bank of Ceylon].

Because the risks and marginal costs of lending to agriculture in general, and to the rural poor in particular, are often higher than for loans to other parts of the economy, formal lenders tend to shy from lending in rural areas, even with government pressure to serve agriculture [Ahmed, Ladman and others]. Lenders have even less incentive to lend to agriculture and the rural poor when regulations set interest rates lower on agricultural loans than can be charged on other loans [Blitz and Long]. The same microeconomic forces cause formal lenders to shorten the loan term structure and shift their funds to a more concentrated and less risky portfolio when expected rates of inflation increase [Adams and Nelson].

Governments have used a number of techniques and policies, up to and including the nationalization of banks, to force formal lenders to ignore their own profit and loss considerations, and serve some social objective or target group not reached through market criteria [Desai, Shetty, Agrawal]. Generally, the results of these efforts have been disappointing [Vogel and Gonzalez-Vega]. It is virtually impossible for a government to monitor and enforce loan rationing policies when hundreds of thousands of formal loans are made in widely disbursed areas of the country. The essential properties of financial instruments are their fungibility, their divisibility, and their substitutability [Von Pischke and Adams]. Lenders, for example, may meet the letter of the

law by simply reclassifying loans to meet quota requirements. The lender may also shift small borrowers who are funded with the lender's own resources onto lines of credit provided by the government or by an aid agency. The lender may then lend its own released funds for non-priority, yet profitable, loans. This may result in little or no additional lending to the priority group or activity specified by the lender. The same problems of fungibility occur among borrowers.

Negative real rates of interest also distort loan demand. If expected interest rates are negative, the borrower may realize an income transfer by taking a loan, investing the money in an asset that increases in value at the same pace as inflation and later liquidating the asset to repay the loan. With negative real rates of interest some loan demand may be for acquiring this income transfer rather than for making productive use of loans [Boulding and Wilson]. These income transfers can be very sizable when real rates of interest are highly negative and sizable formal agricultural credit programs are involved, as in Brazil, for example, where yearly income transfers of 3-4 billion dollars U.S. may be involved [Sayad, 1979]. The excess loan demand stemming from the negative interest rates may also cause the lender to create a number of administrative hurdles that raise the loan transaction costs for potential borrowers who are not profitable clients. In this way the lender effectively discourages loan demand from some potential borrowers without violating policy

directives. In the end, lenders exclude small borrowers and concentrate their "rationed" loans on large borrowers who have excellent collateral.

The new views also include more positive attitudes about informal financial markets [Barton, Begashaw, 1978, Harriss, Bouman, Igben, Levi]. Informal lenders are thought to provide valuable services, and impose lower costs on most borrowers than had been generally thought. The opportunity costs of money lent in the informal market by merchants or farmers is usually ignored by those who criticize informal lenders' charges on loans. Singh, for example, found the opportunity costs of money informally lent by some Indian farmers amounted, on an annual basis, to 77 percent of the value of the money lent. These opportunity costs made up over half of the interest charges. Harriss's recent work among merchants in Southern India, who also extend informal loans, showed their opportunity costs of lending, instead of using the funds to internally expand their buying and selling operations, amounted to as much as 63 percent of the value of the loans extended. In addition, Nehman showed that for the rural poor, informal loans may be no more costly than formal loans when total loan transaction costs for the new and small borrower are carefully calculated. In some cases, at least, the informal lender is also able to provide more flexible and more desirable financial services than do formal lenders. The fact that borrowers often choose to repay informal loans before they repay formal loans sup-

ports this conclusion.

The new views also suggest that the rural poor may have much larger savings capacities than heretofore recognized, when they are given adequate opportunities and incentives to save [Wai, 1972b, Von Pischke, 1978]. Only a few studies have been done on voluntary rural savings capacities, and some of these have used survey data that may have included under-reported income information [Bhalla, Williamson]. Only a handful of studies have used farm record-keeping data or time series survey data that may have given accurate estimates of rural household consumption, savings and income activities. Studies on time series Farm Household Economy Surveys in Japan, for example, showed average propensities to save that grew from .10 in 1950 to .22 in 1973 [Mizogushi]. Marginal propensities to save were significantly higher. Studies using time series data from Farm Record-Keeping families in Taiwan showed even higher average and marginal propensities to save over the period 1960 to 1974 [Ong Adams and Singh]. Similar studies on time series data from Farm Household Economic Surveys in Korea showed average propensities to save that ranged from .15 in 1962 to .33 in 1974 [Hyun Adams and Hushak, Ro, Ahn Adams and Ro]. Marginal propensities to save were, again, substantially higher. Less comprehensive studies in Kenya, Mexico, Malaysia, the Sudan, the Punjab of India and Zambia also uncovered substantial voluntary savings capacities [Adams, Reynolds and Corredor, Singh and others].

Several studies of cooperatives and farmers' associations in Korea, Japan, and Taiwan showed that mobilization of voluntary financial savings deposits in these institutions played a major role in their economic strength [Lee Kim and Adams, Kato, Tuan]. Borrowers are more likely to repay loans if a substantial part of the money lent is mobilized via savings deposits in the local area.

The new consensus also holds that borrowers' loan transaction costs are more important in determining loan demand among small and new borrowers than are interest rates. In contrast, large and experienced borrowers may be very sensitive to changes in interest rates because interest payments make up a large part of their total borrowing costs and their less obvious loan transaction costs are negligible. In a Bangladesh study, Shahjahan found that interest payments made up only 17 percent of the total borrowers' transaction costs for those farmers with small loans from the Agricultural Development Bank. At the same time, large borrowers from the same bank incurred interest payments that made up 57 percent of their total borrowing costs. All borrowers from the bank paid the same rate of interest on their loans, seven percent. Ahmed's work in the Sudan supports these results.

The new views also posit that overall savings behavior in rural areas is quite sensitive to changes in real rates of interest paid on deposits. The preliminary results from a pilot savings mobilization project in Peru, that involves

substantial increases in the interest rates paid on deposits, strongly suggests that people in rural areas will substantially increase their savings deposits if given security, liquidity and high returns. Earlier rural savings performance in Taiwan, Japan and Korea reinforce this conclusion.

The new views go on to argue that interest rates and loan supervision have a weak effect on decisions to adopt new technology or make on-farm investments. Loan supervision is often ineffective because the supervisor knows little about the practical problems of farming, has little incentive to provide useful technical assistance, or has few if any profitable new production techniques to extend to the borrowing farmer [Begashaw, 1980, Adams Peña and Giles]. Interest payments are only one of several factors that influence loan use decisions. While <u>everyone</u> wants to pay the lowest interest rate possible, borrowers may be even more interested in the non-interest borrowing transaction costs, the timeliness of the loan disbursement, the flexibility of loan repayment procedures, and the availability of additional loans from the lender [Barry and Baker]. Many advocates of low interest rates ignore the importance of other borrower loan transaction costs in the borrowing decision, especially for small farmers. For example, if interest payments only make up 25 percent of total borrowing cost, a doubling of interest rates will only increase borrowing costs by one-quarter. It might be argued that if formal lenders were allowed to charge higher rates on

agricultural loans that they would eliminate a number of the loan application hurdles and collateral requirements that currently make up a large part of borrowers' loan transaction costs. Higher interest rates may result in lower borrowing costs for some borrowers and tilt the system towards a more equitable inclusion of heretofore excluded smaller farmers.

Low interest rate advocates also ignore that interest payments especially among small and medium sized borrowers, often make up a very small part of total operating expenses. In 1970, small farmers in Taiwan and Korea, for example, spent on the average only two percent and one percent, respectively, of their total farm and household cash expenditures on interest payments. Among only the borrowing households the percentages were less than four percent in both countries. In most cases, product or input prices are much stronger incentives to adopt new technology than are interest rates. Furthermore, these prices have a much wider impact among the farming population than do credit programs.

Interest rates do, however, have a very strong influence on lenders' behavior (formal lenders as well as formal savers). Under normal conditions receipts from interest payments make up a very large part of a formal agricultural lender's total revenues. Major increases or decreases in interest rates applied on farmer loans, therefore, have dramatic impacts on the marginal as well as total revenues and thus surpluses or deficits of the lender. Even in nationalized banking systems

these lender revenues and surpluses or deficits largely determine the overall vitality of RFMs and their ability and willingness to perform financial intermediation in a socially desirable manner [Von Pischke, 1979]. With long periods of negative real rates of interest, lenders are forced to rely on permanent subsidies to cover their operating expenses, to cut back on their scale of operations, or allow the quality and quantity of their financial services to deteriorate [Adams and Pablo].

Critics have also questioned attempts to include loans as part of a package of inputs. They argue that packaging loans and use of other similar non-market rationing devices diminishes the most attractive and useful property of finance, fungibility. It is the fungibility of money that allows it to be converted into any good or service available in the market [Von Pischke and Adams]. Many planners try to destroy this essential property of finance by allocating loans in fixed quotas, making loans in kind, or trying to specify the ultimate use of the loan. This planning-approach to the allocation of loans assumes that a borrower knows not what is best for him or her, that loans can be allocated like physical inputs, and that the planner in the capital city can effectively make efficiency and equity decisions for thousands of heterogeneous borrowers. Pushed to its extreme, the planning approach to loan allocation would result in a return to a barter economy. Fortunately, the ability of planners to diminish fungibi-

lity is extremely limited; secondary markets for goods lent in kind quickly spring up (borrowers receiving the rationed input will sell it to others who need it more), and borrowers can substitute borrowed liquidity for their own liquidity when planners' priorities do not match those of the borrower. The widespread non-market rationing devices used for agricultural loans in many low-income countries are mostly a mirage and have very little impact on the allocation of real resources [Vogel and Larson]. Their main effect is to increase the total costs to society of financial intermediation and also to undermine the viability of lenders.

Some observers are also questioning the way traditional credit projects are evaluated. They argue that too much emphasis and time has been spent on trying to measure the impact of loans at the farm level [David and Meyer]. Because loans readily mix with other liquid assets, it is costly to accurately measure the impact of the additional liquidity provided by a loan to farm-households [Barry Hopkin and Baker]. It is very difficult to attribute changes in household expenditures or investments to a specific loan, and to isolate how many of these activities would have occurred without this loan. Because the farm-household impacts of loans are so difficult to measure, the new views hold that the performance and vitality of the lender and of overall RFMs may be the most useful measures of the success or failure of a credit project.

Key Elements in a New RFM Strategy

The new views on RFM projects challenge many of the assumptions and policies that have been vital parts of LIC agricultural credit projects in the past. They also stress that the results from these projects are not consistent with efficiency or equity goals. While the specific suggestions for improving the results of RFM projects must be time and place specific, a few general suggestions do emerge out of these views.

One of the most prominent suggestions is that more flexible interest rates could be a key factor in improving the results from most RFM projects [Gonzalez-Vega, 1977, Vogel, 1977, D. Adams]. Nominal rates of interest must be flexible so that they go up and down with inflation. Interest rate policies on both credit and deposits should be aimed at maintaining relatively stable and positive real rates of interest. Lenders (banks and individual savers) must expect to receive positive real returns most of the time from their financial transactions if RFMs are to function equitably and efficiently.

With more attractive incentives for savers RFMs could mount major saving mobilization schemes in rural areas [Mauri]. The previously mentioned pilot savings mobilization project in Peru, and another pilot project in Bangladesh that is experimenting with more flexible and higher interest rates on both loans and deposits in rural areas should provide insights on how to proceed with larger schemes [G. Adams]. As sug-

gested earlier, changing the image of who owns the money lent will improve loan repayment. If formal lenders depended less on central banks, foreign aid and government budgets for funds, they would experience less political interference [Ladman and Tinnermeier]. If lenders, such as cooperatives, were able to provide attractive savings deposit facilities to their members, it would give more cooperative members strong reasons for being active members [Robert, Youngjohns, Illy]. In early stages of development, savings mobilization should receive top priority in RFM activities, and loans should receive secondary attention.

In most cases it also appears that the building of new specialized credit institutions to service fragmented financial needs in rural areas should receive less attention. These institutions usually rely on government subsidies or foreign aid for funds to make up their loan portfolio and to cover operating expenses. The funding source often loses interest in underwriting the costs of the agency after a time and reduces funding. Because the agency does not typically accept deposits it becomes heavily dependent on the government for continued funding, and political interventions into the operations of the agency become common. Furthermore, the agency is often asked to lend to a relatively narrow target group: e.g. livestock farmers, long-term investments, small farmers. This loan specialization does not allow the agency to diversify its lending risks nor to service non-farm rural

enterprises [Von Pischke, 1979, Meyer]. Instead of continuing to emphasize the creation of new lenders, more attention should be directed to diagnosing why existing financial institutions are not providing the types and amounts of services desired. Policy changes should be aimed at providing more incentives to existing lenders to expand their services in the desired directions.

Governments and aid agencies must also use care when they introduce additional loanable funds into RFMs via special rediscount facilities in central banks. For example, why should banks in the Dominican Republic or the Philippines open new savings deposit facilities in their branches and pay 6 to 8 percent on these deposits, when they can get rediscount money from the central bank at lower rates!

Finally, RFM projects would be improved if designers and policymakers stopped viewing loans as inputs similar to fertilizer, labor, seeds, or breeding stock. Rather, loans must be viewed for what they are, claims on resources that allow the borrower command over additional goods and services that may or may not be used for the purposes stated in the loan application. Instead of trying to ration this command over resources in predetermined lumps to thousands of borrowers, policymakers should provide proper incentives for lenders-mobilizers to perform in more socially desirable ways. Stress should be placed on improving the process of financial intermediation and reducing the costs of this process for society. The focus should be on inducing RFMs as a whole to service

better the credit and deposit needs of a much broader clientele in rural areas. Along with this, RFMs should also be given strong inducements to adopt innovations that reduce the total costs of financial intermediation. RFMs cannot be used to transfer cheap credit to thousands or millions of small, previously unserviced farmers. If governments attempt to push this strategy, the cheap credit will mostly end up in the hands of the wealthy [Sayad, 1977]. Other methods must be used to help more directly the rural poor.

## Why so Little Change in RFM Projects and Policies?

There are at least four major explanations for why so little change has occurred in agricultural credit projects the past several decades, even though a number of people are heavily criticizing the results of traditional projects. The first reason might be that the new views are incorrect or that they are based on faulty research or on research done on cases or areas that make generalization inappropriate. It seems to us that, while additional research would be useful, enough information is at hand and enough knowledgeable people agree on the results of this research so that some experimentation with new policies along the lines presented above are warranted. At the very least, advocates of traditional agricultural credit projects and policies should be required to offer more than received wisdom, horror stories, and seat-of-the-pants empiricism to justify their positions.

A second reason for so little change might be that it takes a good deal of time for policymakers to understand, accept, and adopt the ideas included in these new views. Many of these views challenge dogma about RFMs that have deep historical roots whose "truth" has been reinforced in the minds of policymakers by endless repetition, numerous tales of horror, and religious teachings. Old ideas die very hard! It took Christian societies many centuries to view usury and lending with some logic rather than all passion [Nelson]. Intermediaries, especially lenders, have been viewed with suspicion in almost all societies. Is that because they are often "outsiders" or "foreigners": e.g. Jews in Europe, Chinese in Southeast Asia, people from the Middle East in Latin America? [Riggs] These intermediaries are often targets of criticism stemming from any unexplained economic discomfort experienced by producers and/or consumers. Because most countries are rapidly moving away from subsistence and barter activities into highly monitized economies, we feel policy-makers do not have the luxury of waiting several centuries to understand the importance of finance in development.

A third explanation might be that policymakers understand that RFM projects are not working well and that elimination of some RFM distortions might improve resource allocation and help meet equity goals. The reasons these policy changes are not made are that distortions in RFMs are often justified as offsets to other distortions in the economic system that

penalize agriculture [Vogel, 1979]. These other distortions may be overvalued exchange rates, price controls on food, import regulations, taxing policies, or sectoral investment strategies favoring industry. The distortions in RFMs are second best measures aimed at partially offsetting these other distortions. To the extent that circumstances continually force the adoption of broader macroeconomic policies that penalize agriculture, policymakers may feel compelled to resort to concessionary priced credit programs to help the sector adapt satisfactorily to these other penalizing measures [Bourne and Graham, 1980b]. Some argue that it would be impossible to substitute appropriate policy adjustment to make RFMs perform more satisfactorily unless these other distortions are also removed. Thus, the prospects for effective reform of RFM policies becomes inextricably linked to the difficult tasks of reforming the entire structure of the economy.

We agree that adjustments in financial market policies, accompanied by reforms in other economic policies, as done in South Korea in the mid-1960s, is the best way to improve the performance of RFMs [Brown, Cole and Lyman]. We feel, however, that reforms in RFM policies alone, can result in important gains in resource allocation efficiency and more equitable allocation of income. The complex and often confusing second-best arguments used to justify distortions in financial markets make it difficult for many to understand the

vital issues involved. The tax-subsidy framework often used to justify concessionary priced agricultural loans to offset other adverse policies in agriculture breaks down for at least three reasons: this policy concentrates income, it does not result in more efficient resource allocation, and it discourages savings.

Proponents of this line of argument ignore that low interest rates strongly affect lender behavior, and administrative fiats are largely ineffective in reversing this behavior. With low interest rates the lender often has excess demand for the "sweet money." The lender reacts by transferring part of the loan transaction costs to the borrower, lends to those who present very little default risk, requires substantial collateral, tries to increase the average size of loans made, and excludes new borrowers. The net result is that lenders concentrate cheap loans in the hands of relatively wealthy and experienced borrowers [Vogel, 1977]. Because the subsidy involved in cheap credit is proportional to the amount of money borrowed, the subsidy also ends up being very concentrated [Gonzalez-Vega, 1977]. The microeconomic interest of the lender typically swamp the effects of policy directives from the capital city aimed at forcing less concentration of loans. It is impossible for policymakers to police administrative fiats in RFMs because of the large number of lenders and borrowers that are usually involved.

It should also be clear that, because of fungibility,

cheap credit will not help to offset inefficiencies in resource use caused by policies adverse to agriculture. If cheap credit is to off-set inefficiencies, the cheap credit must result in additional use of inputs in the production process that is discouraged by the price distortion due to adverse policy. Because loans are claims on real resources and provide additional liquidity, the borrower can choose to use this additional liquidity in any economic activity available in the market. If the price of product X is artificially low, why should the borrower choose to buy more inputs to produce more X just because the costs of the additional liquidity provided by a loan is kept low through concessionary interest rates? Economic theory and common sense lead one to expect that the borrower will use the additional liquidity to buy that good or service providing the highest marginal return or utility. The essential property of finance, fungibility, largely dissolves the ability of policymakers to offset inefficiencies in resource allocation in agriculture caused by one policy, with cheap credit.

In our opinion the strongest case against the second best argument can be made on what low interest rates on loans, and thus on deposits, do to savers and the overall vitality of rural financial markets. Low interest rates on financial savings seriously weaken the incentive that many people in the society have to postpone consumption. These potential savers are the invisible victims of cheap credit [Kane, 1970].

Low interest rates force many people in the society to use their "surpluses" in economic activities that have low marginal returns. The cheap loans also cause the rich to colonize most formal agricultural credit programs, and the low rates of interest paid on savings reinforce the exclusion of the poor from participating in formal financial intermediation [Blair]. Economies of scale and widespread popular support for formal financial market activities are impossible to realize under these conditions.

A final reason for the lack of change in RFM policies may be due to the fact that the political system finds that the current performance of RFMs is satisfactory [Ladman and Tinnermeier]. That is, political forces in the country may be more than satisfied with the results of distortions introduced by negative real rates of interest in RFMs because they result in the allocation of political patronage in the form of applied income transfers to those influential people in the economy who end up receiving most of the cheap credit [Robert]. Distortions in interest rates as well as other price distortions, caused by fixed exchange rates, import and export regulations and licenses allow the political system to allocate "administrative profits." If interest rates were raised to equilibrium levels, the political system would have no cheap credit to grant to those favored patrons and strong supporters of the political system.

One might ask why individuals in society who are disad-

vantaged by low interest rate policies do not organize to press for more appropriate policies. An explanation for this is that large numbers of widely disbursed individuals (i.e. landless workers and small to medium-sized farmers) are disadvantaged by current interest rate policies. They are largely excluded from access to formal credit because of the credit rationing process practiced by formal lenders. Others are paid low returns on their small savings or decide not to save at all in financial form because of the low returns. When a large number of people are only hurt a small amount by a policy, it is difficult to mobilize these individuals for political action. The opposite is true for those who benefit from low interest rate policies. Many who receive these benefits are powerful individuals. Any policy change that reduces the benefits they receive through cheap credit draws immediate and strong reactions. This may be one of the reasons why a number of powerful economic interests are so tolerant of inflation. Inflation along with low and inflexible interest rate policies allow those with access to concessionary priced loans to receive large income transfers because of the negative real rates of interest. Inflation also allows the political system to mask the magnitudes and directions of the political patronage transferred through the financial system. In most cases it is not a conspiracy among a few individuals that results in fixed nominal interest rates, inflation pressures, and negative real rates of interest rates. Rather, it is a <u>convergence</u> of interests that result in the

popularity of negative real rates of interest once they have become established through rising rates of inflation [Lipton].

The new consensus attacks traditional RFM projects, and suggests ways these projects can be reformulated so that efficiency, equity and capital formation goals can be realized. These views call for a major overhaul in how RFMs are used in development. Despite these strong criticisms, advocates of the new views have said very little about the nuts and bolts of translating this consensus into new policies and projects. The substantial number of articles, papers, books, conferences and workshops that have pushed these new views have not been sufficient to convince policymakers to abandon traditional RFM projects. A very small amount of experimentation along the lines of the new consensus is taking place, but it is surprising that more experimentation is not carried out since some of the new views can be tested in small pilot projects that have very small start-up and close-down costs. Do external aid agencies fail to push these types of experiments because they lead to self-help activities rather than large loans or grants typically involved in traditional credit projects?

We do not have a crystal ball that allows us to forecast the things that must be done to get policy changes made that are necessary to improve the performance of RFMs in LICs. Some further testing of these new views is probably needed to further verify the policy changes suggested. It is also

likely that more communication among researchers who are arguing for the new views and policymakers is needed to clarify the complicated and confusing issues involved. Researchers also need to do a more careful job of documenting the results of current projects and RFM policies, and clarifying the extent to which RFM distortions are or are not efficient, second-best adjustments to offset other economic distortions. Researchers may also be able to help identify changes in policies outside RFMs that may compensate groups who lose benefits because of financial market reforms. However, this approach will only be possible in those cases where the implied subsidies flowing through financial markets are relatively small, real rates of interest are not highly concessionary or the total amount of formal agricultural credit is not large.

In those cases where real rates of interest are highly negative, large amounts of money are lent through RFMs and/or loan repayment performance is very poor, it will be very difficult to devise ways to "buy-off" through compensating policies those groups that are currently receiving major income transfers through RFMs. If a group has the power to maintain interest rate policies that result in large income transfers to them or repel loan repayment pressures, they likely already have the political clout to manipulate other policies such as product prices, public investments, and new technology development to their advantage.

## Conclusions

In concluding this review it is useful to recognize two broader problems generated by cheap agricultural credit. First, in those countries where the viability of lending institutions may be of secondary importance because they explicitly engage in deficit financing of these programs, extensive subsidized financing of agricultural credit programs can generate significant inflationary pressures. Recent work by the World Bank staff has highlighted the important role that the large volume of rural credit has played in adding to the money supply of Brazil in the mid to late 1970's and contributing substantially to inflationary pressures.

Second, the degree and magnitude of credit subsidization in most countries has taken its toll on the amount of resourses available for other vital programs in such areas as agricultural research, basic infrastructure to lower the costs and risks of marketing and improved educational services for the rural population, among others. Unfortunately it is precisely in these areas that major efforts must be undertaken to improve the economic rate of return of farming. It is only when these bottlenecks are reduced that credit can really make a difference and in doing so can be priced realistically. Conversely, if these other problem areas are not properly dealt with credit (subsidized or not) will not make any difference. Credit by itself cannot raise the rate of return to farm investments.

Twenty years ago development experts began to realize that rural people in low income countries were able to count, even though many were not able to read. Schultz, Hopper and others did a valuable service by educating the development profession on the rationality of farmers in LICs. Currently, almost all knowledgeable persons working on development respect the ability of farmers in LICs to efficiently allocate their resources and respond to product prices, input prices, and new technology, with all its related risks, in rational ways. It is past time that the development profession recognized that these same individuals make similar rational decisions when they participate in financial markets. Current low interest rate policies are making it virtually impossible to induce formal lenders to provide needed loan and deposit services to the rural poor. We feel that financial systems will not produce the types of services needed to satisfy generally accepted development goals unless more enlightened policies along the lines suggested by the new views are adopted.

## Footnotes

* In this article we present a state-of-the-arts on analysis of rural financial markets in low income countries. We feel such a review is necessary because of the large amount of new work that has been done on this topic, and because the results of some of these recent analyses differ sharply from traditional views widely held on agricultural credit. Because of space limitations, we present only very brief textual summaries of empirical evidence to support our conclusions. We do, however, provide extensive citations that allow the reader access to literature we feel supports our assertions and conclusions. Our colleagues at Ohio State contributed a number of the ideas summarized here. Also, the Office of Rural Development and Development Administration Agency for International Development provided support for the preparation of this article.

1/ Readers wanting more background on these ignored issues might look at [Gurley and Shaw, 1960, Gurley and Shaw, 1967, Shaw, 1973, and McKinnon, 1973].

2/ Those looking for details on agricultural credit projects might review [The Agency for International Development, 1973, Donald, and The World Bank, 1975].

3/ For a statement of these assumptions in the 1950s, see [Technical Cooperation Administration, and Belshaw].

4/ The real rate of interest is defined as $\frac{1+i}{1+p} - 1$, where i is the nominal rate of interest, and p is some annual change in prices.

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